22–23, 1904. During this storm the alternating gusts that affected only the top of the Hill caused simultaneous temperature fluctuations of 5° in either direction, lasting but as many seconds, as though the summit of the Hill were precisely at the waving boundary between the upper warm current and the lower cold current. The week January 12–17, 1909, brought three severe ice storms to the Hill. The kite flight of the 15th occurred between two of these storms and showed a most interesting rapid destruction of the inversion by the advent of the anticyclone, there being an inversion of 6° between 950 m. and 1,050 m. at 11 a. m., by noon the inversion had diminished in strength but doubled its areal extent, and at 4 p. m. it had disappeared. During this time the summit temperature at Blue Hill had remained stationary.

Mr. Brooks concludes as follows:

Regions of strong cyclonic action bringing precipitation and highly variable temperatures seem to be most subject to ice storms. Thus eastern North America and western Europe are particularly susceptible. Toward the continental interiors when cyclones are weaker there is a diminishing frequency of ice storms. In this country, as in Europe, cyclones frequently support an ice storm for a considerable distance across country. For instance, the ice storm of February 21–22, 1913, began in Texas and eventually crossed New England. The storm of January 5, 1910, was reported as causing much damage in New Jersey the morning of January 5.

To forecast these storms for New England is even more uncertain than to forecast rain or snow, for the belt of occurrence is generally narrow. Ice storms may be much more local than snow storms. Predictions must be based on the occurrence of cyclonic and anticyclonic positions favorable for ice storms, and in making forecasts indications of an ice storm already in progress in the West would help. * * *—[C. A., jr.]

AN APPRECIATION.

In the Belgian journal Ciel et Terre (Brussels) for June, 1914, we find published a full-sized official reprint copy of the Daily Weather Map of the Northern Hemisphere for May 1, 1914, as published by the United States Weather Bureau. This reprint serves to illustrate an article by Vandevyver [1] in the same issue of that bulletin, extracts from which are presented below as they will undoubtedly interest American meteorologists at this time.

The map on the back [of the Daily Weather Map of the United States] (in equidistant English projection) seems made especially to delight the meteorologist who aspires always to see things from above, secretly hoping that he may thus more rapidly solve the problems presented by the elements in whose midst we live.

At a glance one may now grasp the situation over the whole Northern Hemisphere as regards cyclones and anticyclones which play, as we know, so important a rôle in the forces of nature, and we see at the same time the distribution of temperatures.

What is particularly interesting to the professional is the day-to-day comparison of these charts; we certainly make no mistake in predicting that this innovation will be productive of discoveries, and that detailed study of these charts will put us on the right track, if not of the real and complex causes of the origins of these variations, at least of the systems to which their movements belong—which will add great weight to the value of the forecasts.

At first glance the notations of the map are a little disconcerting. The fact is that here the C. G. S. system of absolute units has been adopted for the barometric pressures, and the readings are expressed *in bars;* the bar corresponding to a force of 10 dynes (1,000 millibars being equal to 29.53 inches, or 750.06 mm. of the normal mercury column), and the temperature is given in terms of the absolute zero, −273° C.

It goes without saying that, from a strictly scientific standpoint, one can but approve of the adoption of these units; but in consideration of the fact that, on the one hand, the very young science of meteorology must be made to appeal to all its well-wishers (and for this very reason must reach out beyond the limited circle of the profession) and on the other hand, in view of the wide distribution planned for this chart, it is not a priori clear what advantage is to be gained by thus breaking away from the deeply rooted customs of the general public.

Except for this gentle criticism, which is, moreover, but an expression of a personal opinion and detracts nothing from the work of the Weather Bureau, we are certain that our readers will unreservedly admire the excellent chart that we present.

I have collected,[2] for teaching purposes, samples of a large number of meteorological charts published in Europe, and we must admit that the American publication far surpasses the similar ones that have been secured from other countries.

Undoubtedly the reader will ask for the cause of this inferiority. There are various reasons; I believe one of the most important is the scattering of our efforts. The practical Americans have concentrated the whole meteorological service of their vast territory at one single point and have thus been able to give the resulting total the scope that we see before us. In Europe, on the other hand, each country is confined to its own boundaries, be they broad or narrow, and gives only what these permit. *The total interest, energy, and initiative Europe thus expends, probably equals if it does not exceed that dedicated by our trans-Atlantic neighbors;* but our efforts lack coordination and, to use a business phrase, our enormous general expenses tie up a large portion of our capital.[3]

Because of its geographical location [on the western shores of the continent] all of western Europe is in a rather difficult position from the meteorological point of view. * * *

In short everything seems to argue in favor of the creation of a central meteorological service for Europe, well planned and well organized such as is that which exists for America. But alas, our ancient Europe, with its yet more ancient ideas, has difficulty in escaping from the grip of chauvinism. We allow ourselves to be stifled under the enormous expenses incurred by our military affairs * * * and we can not find on our old earth one voice carrying weight enough to stop these follies. We throw our millions into the gulf of an almost criminal insanity without being able to bring about that calm of which we have such need, and to which we all aspire. America, taking a broader view, has thus far relegated to the background that which we have placed first, and she can thus further the greater good of humanity by giving more liberally to science and to progress.

Let us thank her for this beautiful example that she sets us, and vow that some day Europe, wiser, shall do as well.

NORTHERN HEMISPHERE MAP INTERRUPTED.

The following announcement appears on the Weather Map of the Northern Hemisphere for August 6, 1914:

Owing to the state of war involving the great nations of Europe, the meteorological observations from regions in Europe and Asia heretofore employed by the Weather Bureau in the construction of its chart of the Northern Hemisphere are no longer received, and the issue of this map will be suspended from this date until such time as the reports can be resumed. The publication of the daily map of the United States will be continued as heretofore, and those recipients of the map of the Northern Hemisphere who make application therefor, including paid subscriptions, will be listed to receive the weather map of the United States. Unless application is received the map will not be sent, except to paid subscriptions.

C. F. MARVIN,
Chief of Bureau.

[1] **Vandevyver.** Les nouvelles cartes synoptiques du "Weather Bureau" de Washington. Ciel et terre, Bruxelles, 1914, juin, 35: 169–172.

[2] Such a collection may be seen, displayed in frames in the library of the Washington office of the U. S. Weather Bureau.—[C. A., jr.]

[3] Italics are ours.—EDITOR.